

Nov. 9, 1981

Mark E. Reid  
1308 Martha Rd.  
S. Charleston, WV 25303  
(304) 744-6592

Paul V. Cabbage  
Manager, Product Review  
Computer Division

ATARI Incorporated  
1265 Borregas Ave.  
P.O. Box 427  
Sunnyvale, Calif. 94086

Dear Paul:

Thank you for the suggestions for improvement in the programs DOWNHILL and SOLITAIRE. I have incorporated the changes into the programs and I am enclosing two diskettes with copies of DOWNHILL Rev 2.0 and SOLITAIRE Rev 2.0. The modifications to the programs are detailed on a separate sheet of paper.

I have also included the biographical data you requested, and a list of ATARI products which I would like to purchase with the APX prize money.

If there are any more features you would like to see incorporated into the programs, please let me know. If I make any more improvements to the programs, I will send you the latest revision. (e.g. I am working on writing the main loop of DOWNHILL entirely in machine code, to smooth out the vertical scrolling.) Also, if I write any more programs that I think APX would be interested in, I'll send them in.

Again, thank you for your help. Sincerely,

Mark E. Reid

## DOWNHILL 2.0 REVISIONS

- Memory scan registers and vertical scroll register shadowed by VBI routine, to eliminate jerk in display caused by untimely interrupt.
- VBI routine to run clock allows tenths and hundredths of seconds to be displayed.
- Expert course was eliminated, old ~~exp~~ intermediate course now called expert, new intermediate course added.
- Skier was lowered on screen. ~~to better correct~~
- Random course is added.
- To save memory and stay in specified RAM size (16K cassette, 24K disk) some program data was separated into a separate file. The diskette enclosed has five files on it:

DOWNHILL	Disk version of the program.
DOWNHDATA	Data file required by program.
DOWNHILC	Cassette version of the program. (Only difference between cassette and disk versions is the OPEN statement.)
GENDATA	Program used to generate disk file DOWNHDATA.
GENDATC	Program used to generate cassette file DOWNHDATA so that cassette version could be tested. (It worked!)

The program reads the data file during initialization.

## SOLITAIRE 2.0 REVISIONS

- Clock display improved. (i.e. made independent of program action)
- Improper card plays are returned to the place they were picked up from, automatically.
- Instruction pages advanced with joystick trigger (rather than keyboard.)
- Shuffling routine speeded up and made more entertaining.
- Option to clear account added.



# APX Author Biographical Materials - / /

Name: Mark Reid Age: 24  
 Program: DOWNHILL  
 Category: Consumer  
 Address-Street: 1308 Martha Rd.  
 Address-City/ST/Zip: S. Charleston, W. Va. 25303  
 Company: Union Carbide Corp. - Research and Development Department  
 Home Phone: (304) 744 - 6592 Work Phone: (304) 747 - 4757  
 Education: B.S. Ch.E. Virginia Polytechnic Institute + State University 1979  
 Business/Computer Experience: Use computers as tools for data acquisition, reduction, and analysis in R&D work.  
 Hobbies: Playing with and programming my Atari 2600, being a competitive pool player, fishing, hiking, and skateboarding.  
 Notes:

It seems the first item in our list of hobbies has been absorbing more and more of my time and energy. Is there any cure for the hopeless Atari addict? I hope not.

LIST OF ATARI PRODUCTS  
REQUESTED AS APX CONTEST PRIZE

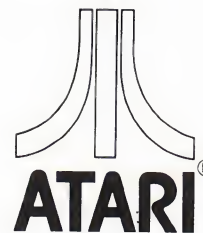
Mark Reid  
1308 Martha Rd.  
S. Charleston, WV 25303  
(304) 744-6592

Quantity	Order #	Item Description	Unit Price	Total Price
1	810	Disk Drive	599.95	599.95
1	CX40-04	Joysticks (pair)	19.95	19.95
1	CX30-04	Paddles (pair)	19.95	19.95
2	CX8100	Blank Diskettes (5)	25.00	50.00
1	CXL 4012	Missile Command	39.95	39.95
1	CXL 4009	Computer Chess	39.95	39.95
1	APX-20034	Developers Diskette	21.95	21.95
1	APX-20036	Basic Utility Diskette	42.70	42.70
1	APX-20056	Diskette Librarian	17.95	17.95
1	APX-20037	Load 'N Go	12.95	12.95
1	APX-20059	Data Management System	17.95	17.95
1	APX-20038	Babel	17.95	17.95
1	APX-20024	Anthill	12.95	12.95
1	APX-20041	Domination	17.95	17.95
1	APX-20050	Eastern Front	29.95	29.95
1	APX-20033	Personal Fitness	17.95	17.95
1	APX-20053	Bumper Pool	12.95	12.95

TOTAL     \$ 992.95



Computer Division



Atari Incorporated  
1265 Borregas Avenue  
PO Box 427  
Sunnyvale California 94086  
408 745 2000

Dear APX Author:

Since the ATARI 1200XL Home Computer was recently introduced into the ATARI product line, providing "upward compatible software" has become of concern to the ATARI Program Exchange (APX). Software written for the ATARI 400 and ATARI 800 is considered "upward compatible" only if it can be run on the ATARI 1200XL without any program or operating instruction changes.

The ATARI 1200XL Home Computer promises to be an exciting addition to our marketplace, offering even greater exposure for your software. APX is doing its best to bring your software to this expanded market.

Authors of products which fail to run on the 1200XL need to revise their programs to correct the incompatibilities. We may have to remove incompatible products which are not revised from the APX product line.

The vast majority of software written for the ATARI 400 and ATARI 800 Home Computers will run on the ATARI 1200XL without modification. Problems occur only if programs take advantage of programming "tricks" such as modifying memory at locations which were not advertised as part of user RAM, or jumping directly into the operating system at unadvertised entry points.

To determine whether your program will run on the ATARI 1200XL, please review the enclosed APX Software Compatibility Guidelines. When you complete the Guidelines, carefully review your code for incompatibility problems. Then take a moment to answer the enclosed APX Product Compatibility Checklist. Please return the completed Checklist to us as soon as possible even if you believe your software is upward compatible.

If you feel you have a compatibility problem, please notify your APX product manager immediately so we can schedule a revision of the program as soon as possible. Your assistance in this endeavor is greatly appreciated.

Sincerely,

A handwritten signature in cursive script, appearing to read 'John J. Cardozo'.

John J. Cardozo  
Sr. Product Reviewer  
APX Software

## APX Software Compatibility Guidelines

Violation of any of the following guidelines could cause a program to malfunction on the ATARI 1200XL. Programs written entirely in ATARI BASIC which do not use the PEEK or POKE instructions should have no compatibility problems. All other programs which do not deliberately attempt to violate one of the rules below are probably also compatible.

References are made in the following paragraphs to the Operating System User's Manual which is included with the ATARI Home Computer System Technical Reference Notes (CA016555, Rev. A, copyright 1982 ATARI, INC.). The notes can be ordered from your local ATARI Home Computer retailer or through ATARI by calling 800-538-8543 (in California 800-672-1404).

Note that the following paragraphs use the convention of preceding hexadecimal numbers with a "\$".

1) There are no "spare" locations in the operating system database. Memory locations \$0000-\$007F and \$0200-\$047F are reserved and should not be assigned to user variables or constants. For example, programs which assign values to the previously unspecified locations \$02C9-\$02E3 are likely to fail on the 1200XL.

2) "User accessible" variables (such as the left margin of text area, LMARGN at \$0052, and the cursor inhibit, CRSINH at \$02F0) have retained their original addresses. However, "internal" and "temporary" variables may have been moved, so no attempt should be made to access them. For example, PBUFSZ, previously at \$02DF, has been relocated.

Warning: NEWROW and NEWCOL, previously at \$0060 and \$0061, respectively, have been relocated. They are internal variables even though they are specifically referenced in the ATARI 400/800 BASIC Reference Manual.

3) System calls to operating system routines should use only "advertised" entry points and vectors. These addresses are provided in Appendix J of the Operating System User's Manual. Vectors labeled "for OS internal use only" (such as DISKIV), or found from scanning the operating system listing may have moved and should not be used.

4) No attempt to detect BASIC, PILOT, or other types of cartridges should be made. Since no documented procedures exist for doing so, revisions to these cartridges could cause such programs to fail. Similarly, no attempt should be made to execute a jump directly into cartridge ROM.



5) Programs should conform to the interfaces described in the Operating System User's Manual with regard to:

Power up initialization (coldstart).

RESET initialization (warmstart).

Interrupt processing.

System timer utilization.

I/O operations.

Floating point operations.

Memory management.

6) Programs should not rely upon "side effects" of system functions. The interface for each operating system function is documented; since "bonus" features such as finding a useful constant in a register upon return cannot be relied upon, they should not be used.

7) The "initialization values" given in section 6 of the early versions of the Operating System User's Manual are not valid for the 1200. They should not be relied upon.

8) No attempt should be made to access the hardware register PORTB, at memory location \$D301 (54017 decimal). Since the two game ports formerly controlled by PORTB have been eliminated from the 1200, it has been reallocated for other purposes.

NOTE: Many popular computer magazines and textbooks provide sample programs which break some of the guidelines presented above. One common example is the provision of so-called "useful POKE locations" for ATARI BASIC programmers without any mention of which variables are internal. Do not assume that a program will run on an ATARI 1200XL if it uses a technique from a published source that breaks any of the preceding guidelines. Use the Operating System User's Manual as the authoritative source if there is any doubt about the legality of a specific programming decision.



# APX Product Compatibility Questionnaire

Name \_\_\_\_\_

Program title \_\_\_\_\_

Program Language (check all appropriate):

☐ ATARI BASIC ☐ Assembly Language  
☐ PILOT ☐ fig-FORTH  
☐ QS FORTH  
☐ Other Please Specify: \_\_\_\_\_

Please use the following questions as a checklist of possible compatibility problems in your software.

- ☐ Does your program access any memory locations in the ranges \$00-\$7F (0-127 decimal) or \$200-\$47F (512-1151 decimal)?
- ☐ Does your program access any internal or temporary variables in the operating system database?
- ☐ Does your program use any unadvertised operating system entry points?
- ☐ Does your program attempt to detect the presence of a cartridge?
- ☐ Does your program conform to all interfaces specified in point #5 of the APX Software Compatibility Guidelines?
- ☐ Does your program make use of side effects of system functions?
- ☐ Does your program rely upon any "initialization values" specified in section 6 of the Operating Sytem User's Manual?
- ☐ Does your program access the hardware register PORTB at memory location \$D301 (54017 decimal)?

Please answer the following questions.

Were you able to consult a copy of the Operating System User's Manual?

Yes No

Using the APX Software Compatibility Guidelines as your criteria, do you expect your program to require modification to run on the 1200XL?

Yes No

If so, by what date do you think you can have a revised program sent to us?

Date \_\_\_\_\_

NOTE: If you have any questions, please call your product manager or me. My number is 408-727-2553.

John Cardozo  
Sr. Product Reviewer

Computer Division



March 25, 1983

Atari Incorporated  
1265 Borregas Avenue  
PO Box 427  
Sunnyvale California 94086  
408 745 2000

Mark Reid  
1308 Martha Road  
South Charleston, WV 25303

Dear Mr. Reid:

The Product Review staff is here to work closely with you in our mutual effort to make APX the leader in software products for ATARI computers. We are proud of our accomplishments and owe much of that pride to your fine programming efforts. As a software reviewer, I learned firsthand how much time and effort goes into the programming, documentation, and manufacturing of all APX products. I want to thank you for all your cooperation in the past, and look forward to working together to continue placing the best software possible into the hands of ATARI computer owners. We are here to help you make this as rewarding an experience as possible.

Of paramount importance to us is making sure that all our commitments to you are upheld. In the past two years, APX has grown considerably. There have been many changes and many moves. So there is a chance that some of you may have different printings of contract forms. To help us avoid future misunderstandings, we would appreciate your help in resolving this matter. Please send me copies of your signed contracts at your earliest convenience.

Another task confronting us currently is the compatibility issue, making sure all APX products can be moved from machine to machine as Atari introduces new computers. John Cardozo recently wrote you requesting information on your program's memory usage in an effort to head off unanticipated problems that might arise during the introduction of the ATARI 1200XL. I hope you are able to respond to his request and send back your completed checklist as soon as possible, if you have not done so already.

I look forward to working with you throughout 1983. If you have any questions, please feel free to contact me at (408) 727-6263.

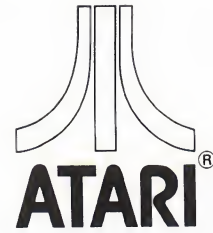
Sincerely,

A handwritten signature in blue ink, appearing to read 'Jack Perron', written over a horizontal line.

Jack Perron  
Acting Manager  
Product Review  
ATARI Program Exchange (APX)

JP:ks

Computer Division



Atari Incorporated  
1265 Borregas Avenue  
PO Box 427  
Sunnyvale California 94086  
408 745 2000

April 21, 1983

Mark Reid  
1308 Martha Road  
S. Charleston, WV 25303

Dear Mr. Reid:

The ATARI Home Computer Division is currently working on a revision of the ATARI BASIC cartridge. Among its features will be a bug fix which could have an effect on your APX programs, depending on how you answer these two questions:

1. Do your programs, in either cassette or diskette format, load and run with less than 16 bytes to spare in available RAM? (If your programs are protected, remember to add to your last RAM total an extra 350 bytes dedicated to the protection procedures.)
2. Do your programs contain any fixed-address USR calls to addresses near the top of memory?

If you answer "no" to both, then your programs should run fine with either the old or new BASIC cartridge. Also, if you answer "no" to the first question but "yes" to the second -- meaning your programs have fixed-address USR calls but don't fill available RAM -- they should also be fine.

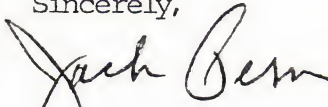
If you answer "yes" to both, you will have to cut down your programs by at least 16 bytes for ~~it~~<sup>them</sup> to work with the new BASIC cartridge.

In the revised ATARI BASIC cartridge, a method was used that adds 16 bytes to a BASIC file during tokenization. This should not bother the majority of APX BASIC programs. However, in a few large programs, the author may have included a fixed-address USR call to the top of memory. With the old cartridge, this would work fine. But with the new cartridge, the top of memory would automatically be shifted by 16 bytes. The USR call would then miss its mark. If your programs seem to fit this description, you'll need to shrink them by 16 bytes and send us revisions.



To help keep track of things, please fill out the enclosed forms, sign them, and include them when you send in your revisions. If your programs will run with both the new and old cartridges, simply fill out the forms, sign them, and return them (no media required). We would appreciate your timely response, to help us see that your programs remain active and their sales continue without interruption. If you'd like further information, please contact your product manager or me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jack Perron". The signature is fluid and cursive, with the first name "Jack" and last name "Perron" clearly distinguishable.

Jack Perron  
Acting Manager  
Product Review  
ATARI Program Exchange  
(408) 727-3263

JP:ks

ENCLOSURES:

BASIC Program Revision Form  
Spring 1983 APX Catalog

ATARI PROGRAM EXCHANGE  
BASIC PROGRAM REVISION FORM

Please type or print

PROGRAM NAME \_\_\_\_\_

APX PRODUCT NUMBER APX-\_\_\_\_\_

FORMAT:	DISKETTE	CASSETTE
1. PROGRAM RAM USE:	_____	_____
2. ADD 350 BYTES (IF PROTECTED):	_____	_____
3. REQUIRED AVAILABLE RAM (LISTED IN CATALOG):	_____	_____
4. TOTAL PROGRAM RAM USE (Add #1 + #2):	_____	_____
5. SUBTRACT #4 FROM #3:	_____	_____

IF #5 EVEN COMES CLOSE TO 16 BYTES, PLEASE ENCLOSE THE FORM WITH A REVISION OF YOUR PROGRAM THAT USES AT LEAST 17 FEWER BYTES.

ENCLOSING REVISION(S) (CHECK):                      DISKETTE\_\_\_\_ CASSETTE\_\_\_\_

NO REVISION(S) NECESSARY (CHECK) \_\_\_\_\_

SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

Return this form (with media, if required) to:

ATARI Program Exchange  
Dept. KS  
3281 Scott Blvd.  
Santa Clara, CA 95051

Note: If you have more than one program in the current catalog, please Xerox this form to allow a separate response form for each program.